



ODFJELL



Odfjell Tankers Day 2023

A warm welcome to you all

Market update

- Product drivers and outlook
- Demand for products and seaborne transportation
- Chemical production capacity and market trends
- Supply/demand outlook
- CII
- ETS
- Trading pattern

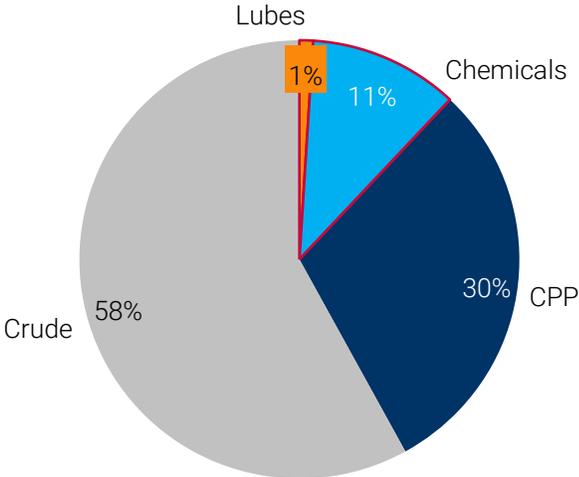


Product drivers and outlook

	Product	Downstream uses and drivers	Development	Seaborne trade (mt)	Outlook
Organics	Methanol	Automotive, fuels, pharma, construction/manufacturing, electronics	<ul style="list-style-type: none"> Methanol increasingly used as fuel (gasoline blend or directly), and as feedstock in Methanol to olefins prod. Significant increase in Chinese production capacity of e.g. PX, MEG, and styrene Increasing wealth in the developing world constitutes a significant upside Plastic pollution is a threat to biodiversity and nature, and is under scrutiny To enable a higher share of recycled plastics, some polymers will be less sought after in the future 		
	Paraxylene/xylenes	PET bottles and packaging, polyester clothes/textiles			
	Ethylene Glycol (MEG)	Polyester clothing/textiles, packaging, automotive and industry			
	Styrene	Electronic appliances, food packaging, construction			
	Benzene	Food packaging, paints and coatings, heat resistant plastics			
	MTBE	Octane fuel additive			
	Ethylene Dichloride	Construction, pipes, tubes, cables			
	Toluene	Octane fuel additive, paints and thinners, benzene production			
Inorganics	Sulphuric Acid	Agriculture (fertilizers), metals	<ul style="list-style-type: none"> Production of caustic soda demands high levels of electricity, which is fast becoming a scarce resource 		
	Caustic Soda	Pulp/paper and alumina production, industrial cleaning			
	Phosphoric Acid	Agriculture (fertilizers)			
Vegoil	Palm Oil	Cooking, butter substitute, methyl esters/biodiesel	<ul style="list-style-type: none"> Extreme weather impacting harvests Geopolitics and regulatory issues, e.g. regarding palm and sunflower oil Primarily produced in emerging markets 		
	Soybean Oil	Cooking, biodiesel, paints/ink			
	Sunflower Oil	Cooking, cosmetics			
Others	Ethanol	Biofuel, chemical feedstock	<ul style="list-style-type: none"> Biofuel a means to decarbonize, but some feedstocks banned for other reasons Growing need for fertilizers as population and wealth increases 		
	Molasses	Food sweetening, animal feed, ethanol production			
	Others	UAN: Agriculture (fertilizers)			

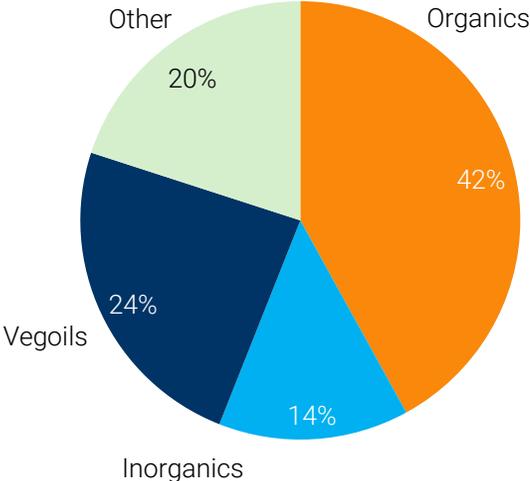
Odfjell's product mix differs from that of the total tanker markets

TOTAL TANKER MARKET



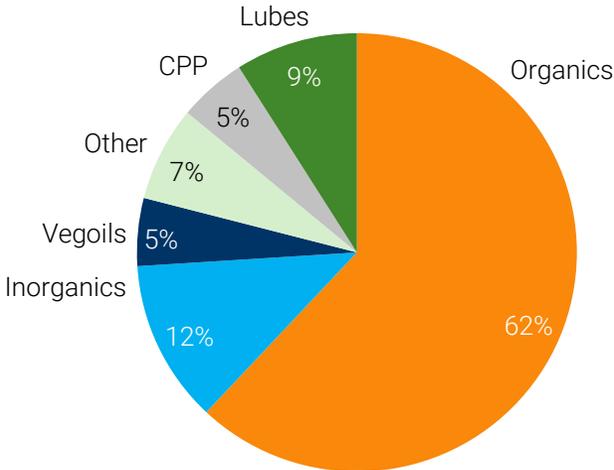
- In 2022, the total tanker market comprised a volume of 3419 mt
- Crude oil was the dominant part of the tanker market
- Chemicals accounted for 11%

CHEMICAL TANKER MARKET



- Chemical products carried by sea in 2022 totaled 369m tonnes, including vegoils.
- Organics has the biggest share with 42%

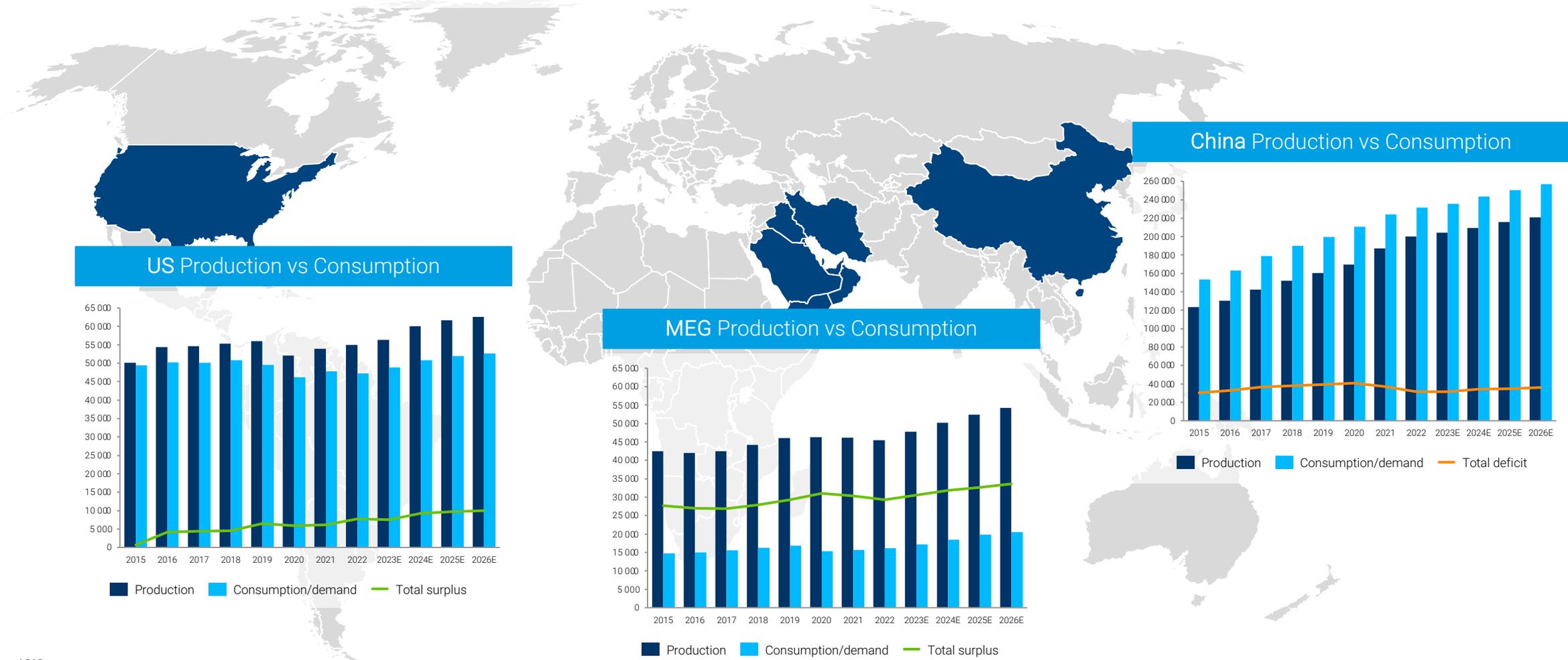
ODFJELL PRODUCT MIX



- In 2022 Odfjell carried approximately 15 mill tonnes, of which organic and inorganic chemicals combined holds a dominant share of 74%

In the main chemical export hubs production capacity grows faster than consumption, likely resulting in continued increases in exports going forward

Capacity increase in the US and Middle East is on the back of local feedstock competitive advantage
 China has a feedstock disadvantage but have nevertheless increased capacity more than any other country or region.



Source: ICIS

Our market is affected by shifting trends and developments

Some current key trends include:



CHINA ON THE PATH TO SELF-SUFFICIENCY

Sharp growth in Chinese petrochemical production capacity to create shifting global trade flows.



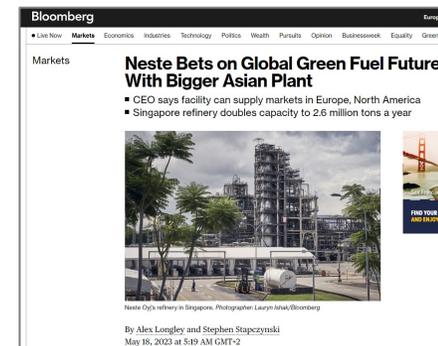
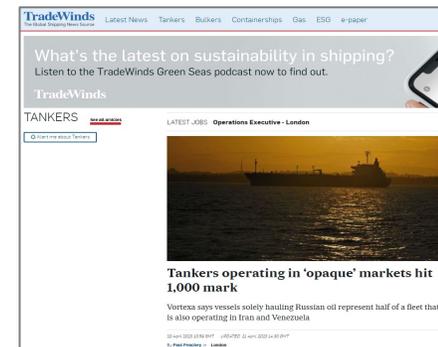
GEOPOLITICS: RUSSIA'S AGGRESSIONS LEADING TO SANCTIONS AND AN ENERGY CRISIS

- Increased transportation distance for various products (CPP, Veg and Chemicals)
- Increased feedstock cost for European chemical producers
 - Exemplified by world largest chemical production company BASF reducing activity in Europe and investing in China – Eur 10bn Zhanjiang project
- Growing number of vessels transporting sanctioned products



THE ENERGY TRANSITION AND REGULATORY ISSUES GIVING RISE TO NEW PRODUCTS

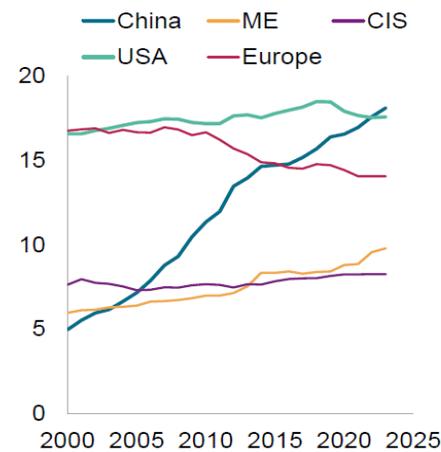
- For the transport sector biofuels is becoming an important part of efforts to reduce emissions
- Various forms of biofuel has grown significantly last decade, and is expected continue in coming years
- Regulatory requirements to feedstock has led to demand for different products across regions
- Other sustainable fuels like green methanol also expected to grow significant in volume



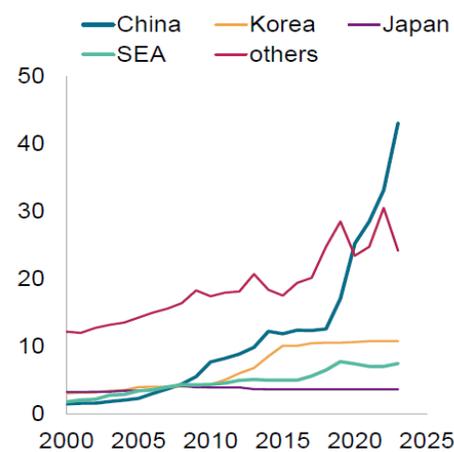
China showing signs of increased self-sufficiency, yet expected that significant flow of products in and out will continue for foreseeable future

CHINA HAS QUICKLY GROWN ITS PRODUCTION CAPACITY FOR REFINED PRODUCTS AND CERTAIN PETROCHEMICALS

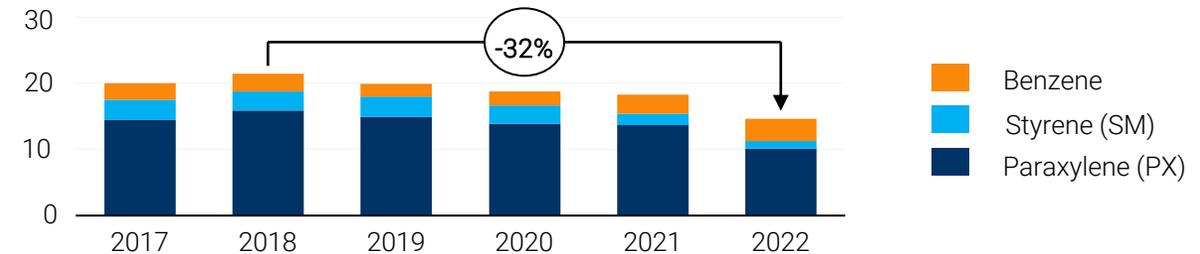
Refinery capacity (Mil b/d)



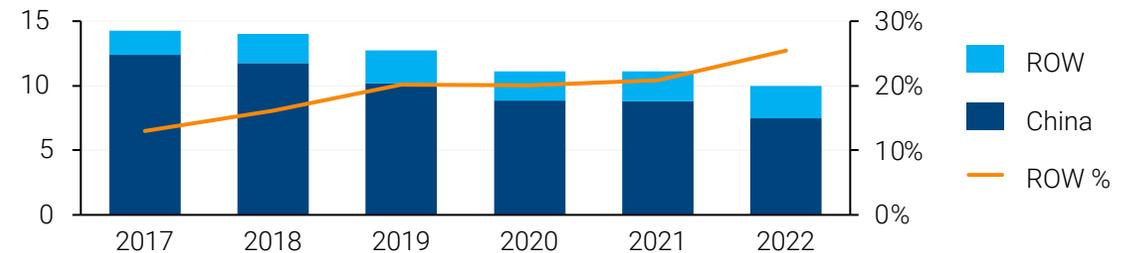
PX capacity (Mil ton)



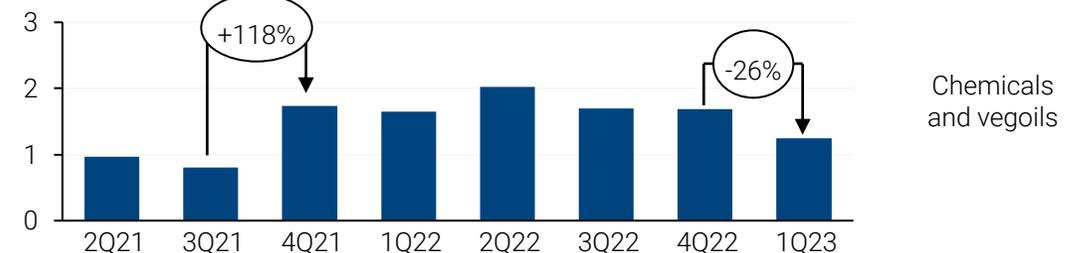
China's imports of key liquid chemicals (million mt)



NEA* exports of PX and SM to China and Rest of World (million mt)



China exports to the Americas, Europe and the Middle East (million mt)



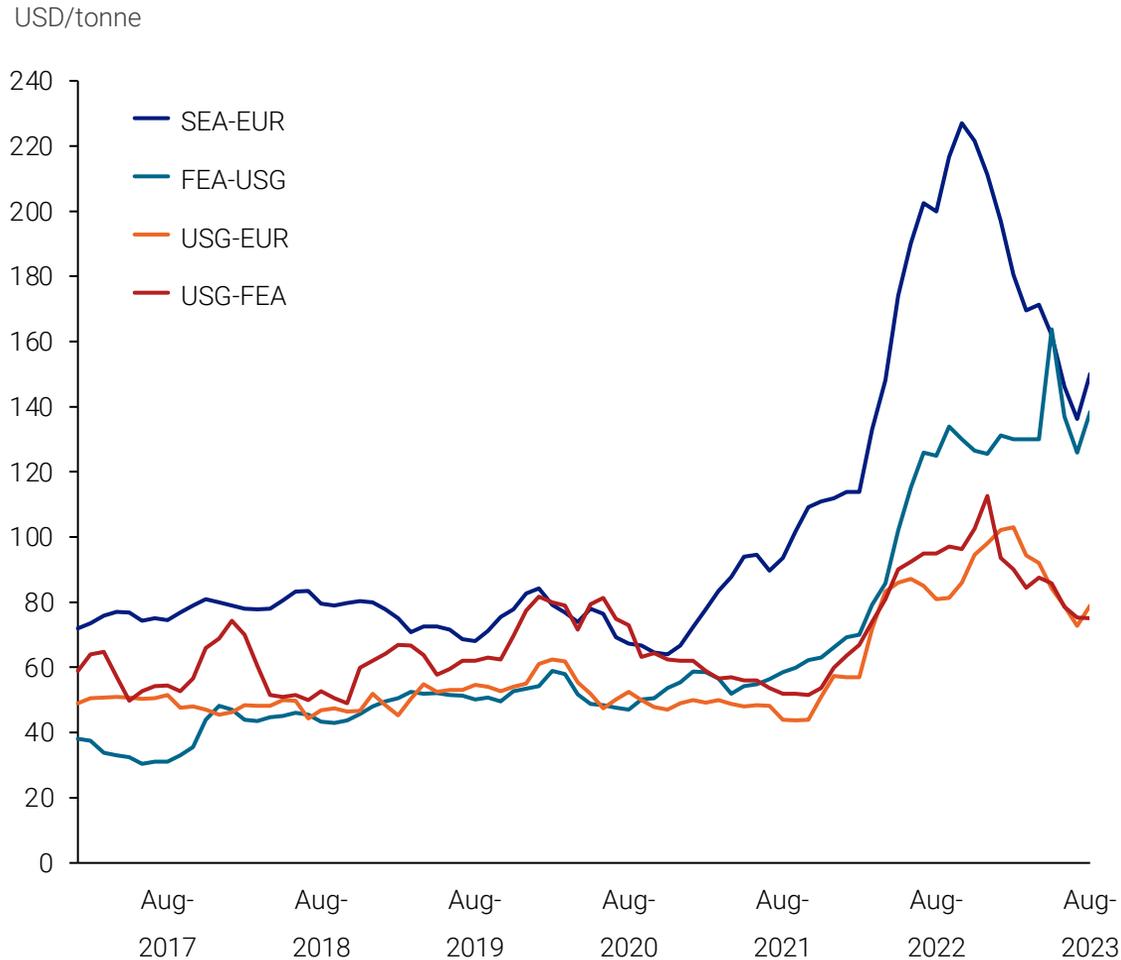
- Production capacity growth likely to result in reduced Chinese imports of some chemicals, while feedstocks and crude imports will likely grow
- If excess production capacity result in exports or reduced utilization rates is uncertain
- Remaining NEA* exports that previously went to China will likely be diverted to other continents

*Japan, South Korea and Taiwan

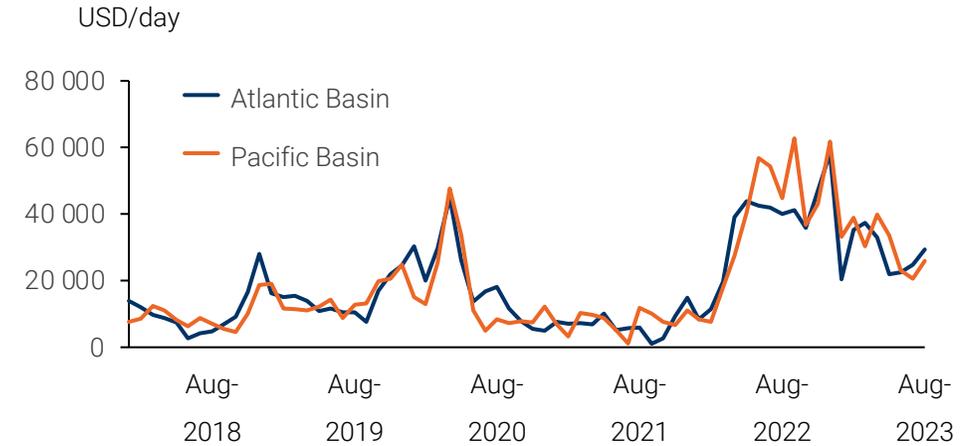
Spot rates have softened somewhat from last year's record levels, yet they remain historically strong

Rates have flattened out so far in 3Q23 and expected to remain at healthy levels, stable demand for chemicals further supported by recent rebound of CPP

KEY CHEMICAL SPOT RATES



PRODUCT TANKER EARNINGS



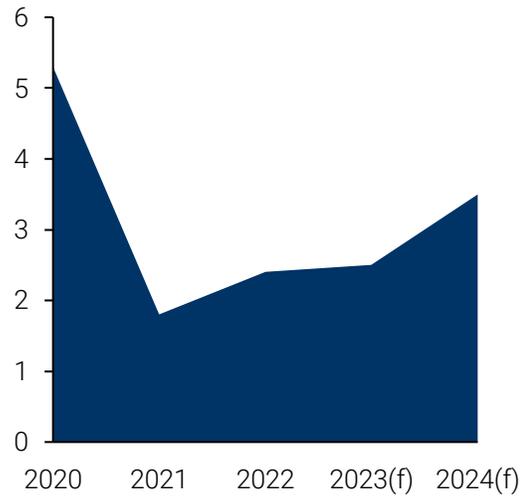
VEGOIL SPOT RATES



Stable demand and limited new supply

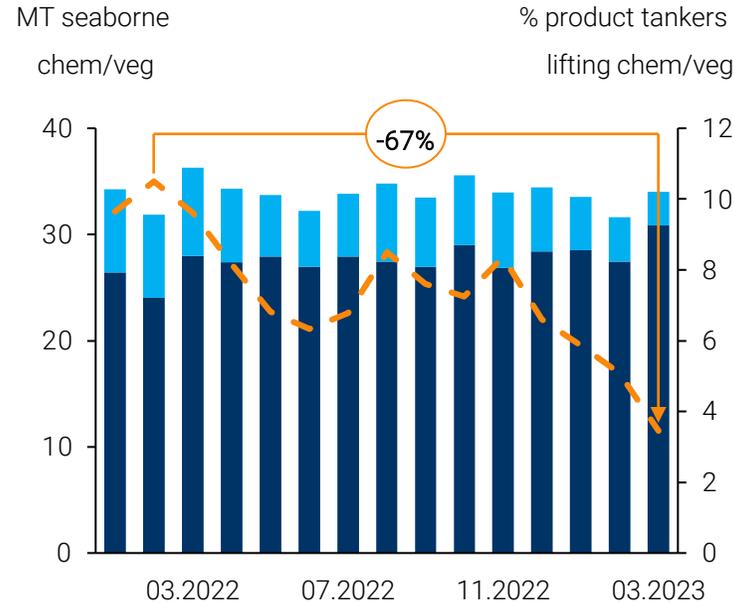
Absence of swing tonnage, limited yard capacity and new emission requirements is set to keep new supply at a minimum in coming years

Tonnemile growth
seaborne chemicals



TONNEMILE

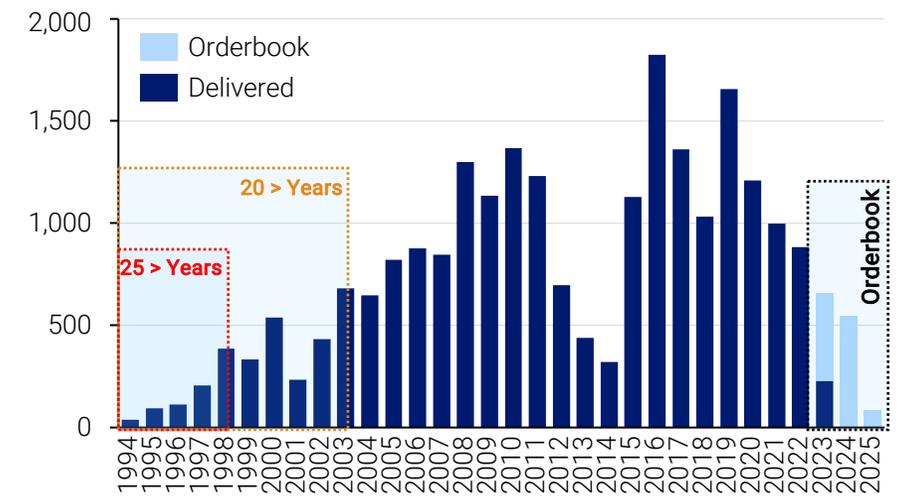
- New production capacity and geopolitics have resulted in longer sailing distance, new patterns are expected to persist.



SWING TONNAGE

- Swing tonnage at low levels. Continued Russian oil trade displacement effects, expected rebound of rates later in 2023 and limited orderbook points to a continued firm CPP market.

DWT (in millions)



ORDERBOOK

- Orderbook to fleet at less than 5% in our core segment, with no super segregator vessels on order.

AGEING FLEET

- Aging fleet combined with limited orderbook points to negative fleet growth for chemical vessels in next 2-3 years.

Sources: Clarkson SIN, Kpler, CKB Fleet

Carbon intensity indicator (CII) continue.

Where the EEXI is a one-time certification, the CII regime will ensure **continuous improvements** to a ship's energy efficiency by enforcing for existing ships year on year.

$$\text{AER} = \frac{\text{Total annual consumption (mt)} \times \text{CO}_2 \text{ emission factor}}{\text{Deadweight (mts)} \times \text{Distance sailed (nm)}}$$

**PORT TIME/SEA TIME – ENERGY
EFFICIENCY**



By using max deadweight tonnes, the AER focuses on propulsion efficiency, distance sailed and misc. other energy consumers.

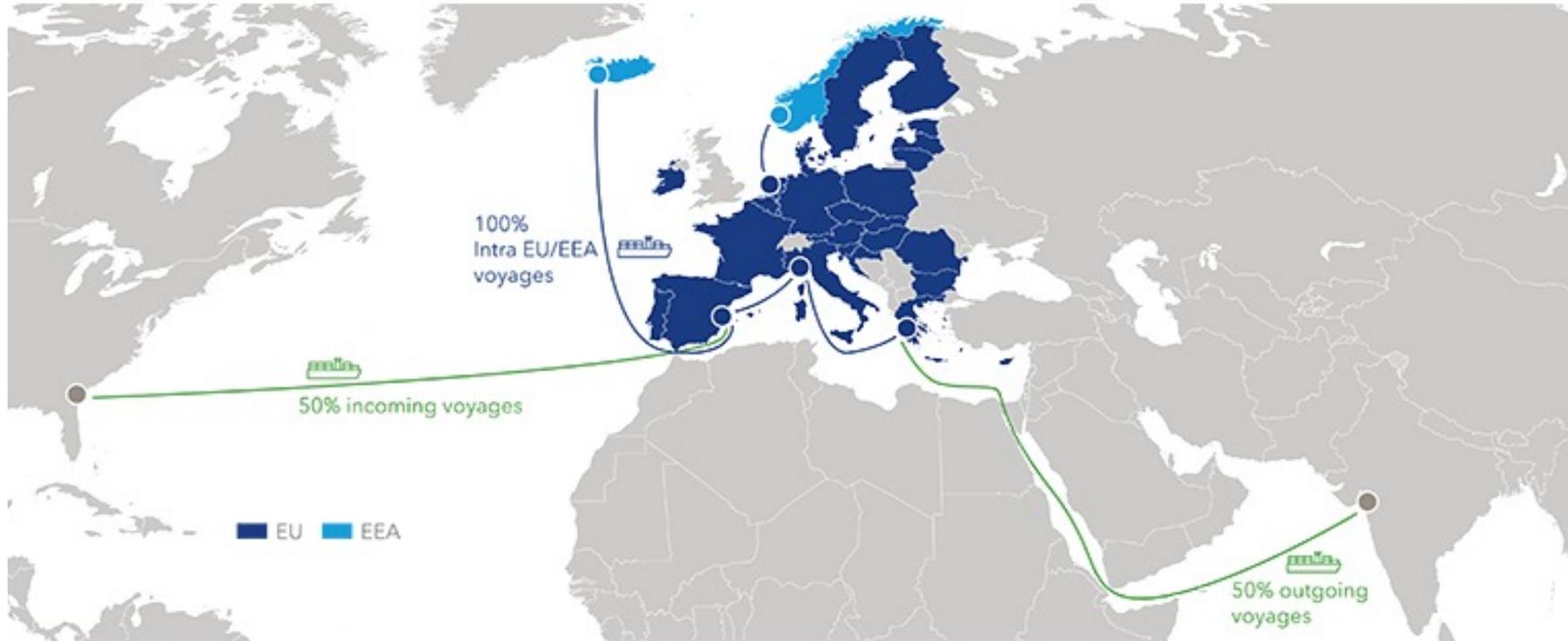
EU ETS

- Paris agreement signed in 2016 by 196 nations, purpose to limit global warming
- EU initiative – not IMO → Buy the right to emit
- 1 ton of fuel = 3 tons CO₂ (1 ton CO₂ = 1 EUA)
- Price of 1 EUA is per today just above EURO 80.-
- A company need to submit to EU by March following year and surrender EUA's by September.
- Non-compliance penalty, first year financial, year 1+2= ban on vessel trading
- ACCURATE REPORTING - ORCA



EU ETS : Requirements, and applicable voyages

Start date, January 1st, 2024. Vessels included > 5000 GT. Liability: Owners (DOC holder)



Phase in period

2024 = 40 %

2025 = 70 %

2026 = 100 %

100 % of emission for

- Intra EU voyages
- at berth in an EU / EEA

50 % of emission for

- Voyages into EU
- Voyages out of the EU

Calculated from: last all clear, non EU
To: First all fast within EU



50%: EU Member State port to a non-EU Member state port and vice versa. 100%: between EU Member State ports. 100%: whilst at berth at an EU Member State port

“Our strategy is designed to **capture** the short term, and to **de-risk** the long term”

- Industry leading **safety** record with a zero-incident target
- Among the world’s largest **deep-sea** chemical tanker operators, with a **global platform** and a **versatile fleet** offering cargo flexibility
- Operator of the **worlds most energy-efficient chemical tanker fleet**, with ambitions to further reduce our carbon footprint
- After the largest fleet renewal program in our history, we have **flexibility to time the market** for further growth
- Restructured and **well-performing tank terminals** portfolio, a diversified source of income and opportunities for further growth
- Strong cash flow has **strengthened our balance sheet** and **capacity to invest** in future opportunities

A blue-tinted landscape photograph showing a wide fjord or bay between steep, forested mountains. In the foreground, a person stands on a curved wooden walkway or bridge that overlooks the water. The sky is clear and light blue. The overall scene is serene and scenic.

Thank you for the attention